

NORTHWOODS JOURNAL — JUNE 2021

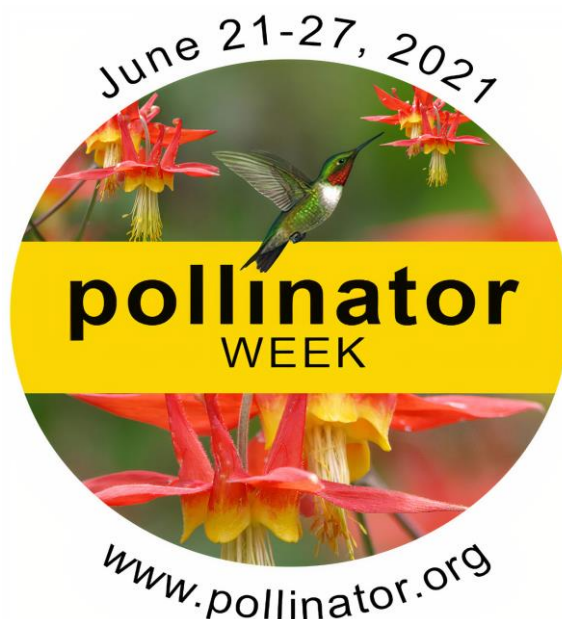
A Free Publication about Enjoying and Protecting Marinette County's Outdoor Life

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Take Part in Pollinator Week!

<https://www.pollinator.org/pollinator-week>



Pollinator Week is an annual event celebrated internationally in support of pollinator health. It's a time to celebrate pollinators and spread the word about what we can do to protect them. The great thing about Pollinator Week is that you can celebrate and get involved any way you like! Popular events include planting for pollinators, hosting socially distant garden tours, participating in online bee and butterfly ID workshops, and so much more. However, you choose to celebrate this year, be sure to register your event on the map below, and share your story with us by tagging us on social media using the hashtag #PollinatorWeek.

Pollinator Week History

Pollinator Week was initiated and is managed by Pollinator Partnership, and fourteen years ago the U.S. Senate's unanimous approval and designation of a week in June as "National Pollinator Week" marked a necessary step toward addressing the urgent issue of declining pollinator populations. Pollinator Week has now grown into an international celebration, promoting the valuable ecosystem services provided by bees, birds, butterflies, bats and beetles.

While this year might not be a typical Pollinator Week due to the COVID-19 pandemic, people across the planet have pledged to continue promoting pollinator health and well-being through socially distant and responsible events.



Through the numerous virtual gatherings, webinars, responsible planting sessions, socially distant garden and farm walks, and monument lightings, Pollinator Week 2021 is geared to be the busiest and best one yet!

Pollination Fast Facts

What is pollination? Pollination is a vital stage in the life cycle of all flowering plants. When pollen is moved within a flower or carried from one flower to another of the same species it leads to fertilization. This transfer of pollen is necessary for healthy and productive native & agricultural ecosystems.

- About 75% of all flowering plant species need the help of animals to move their heavy pollen grains from plant to plant for fertilization.
- About 1,000 of all pollinators are vertebrates such as birds, bats, and small mammals.
- Most pollinators (about 200,000 species) are beneficial insects such as flies, beetles, wasps, ants, butterflies, moths, and bees.



Why are pollinators important? Pollinators are often keystone species, meaning that they are critical to an ecosystem. The work of pollinators ensures full harvests of crops and contributes to healthy plants everywhere.

- An estimated 1/3 of all foods and beverages is delivered by pollinators.
- In the U.S., pollination produces nearly \$20 billion worth of products annually.

How you can help:

- Reduce your impact. Reduce or eliminate your pesticide use, increase green spaces, and minimize urbanization. Pollution and climate change affect pollinators, too!
- Plant for pollinators. Create pollinator-friendly habitat with native flowering plants that supply pollinators with nectar, pollen, and homes. For information on what to plant in your area, download a free eco-regional guide online at www.pollinator.org.
- Tell a friend. Educate your neighbors, schools, and community groups about the importance of pollinators. Host a dinner, a pollinated food cook-off or other event and invite your friends.
- Join the Pollinator Partnership Go to www.pollinator.org and click on "Get Involved." Be part of a growing community of pollinator supporters.

Visit Marinette County Tourism's Updated Website!



Marinette County Tourism recently updated their website with more information on how to get maps, camping reservations, trail reports, activity ideas, and more. Go to www.therealnorth.com and start planning your Marinette County adventures today!

You can also contact the Tourism office at 715-732-7473 or email them via a form at <https://www.marinettecounty.com/departments/tourism/general-information/>.

Lady Beetles – a Beneficial Biological Control on the Landscape

<https://biocontrol.entomology.cornell.edu/predators/ladybeetles.php> &
<https://uwm.edu/field-station/ladybugs-three/>

Ladybugs are not bugs - a more appropriate name is lady beetle or ladybird beetle, order Coleoptera, family Coccinellidae. It seems that back in the Middle Ages, the European grape crop was threatened by a horde of aphids. Adult ladybugs eat aphids, and larval ladybugs eat aphids, and lady beetles rode to the rescue. After they saved the altar wine, the beetles were blessed by the Church with the name "Our Lady's beetle." In several European languages the word "ladybug" translates into "Mary beetle" or "Our Lord's animal."



Pink-spotted Lady Beetle (*Coleomegilla maculata*)

Lady beetles, ladybugs, or ladybird beetles are among the most visible and best known beneficial predatory insects. Over 450 species are found in North America. Some are native and some have been introduced from other countries. Most lady beetles in North America are beneficial as both adults and larvae, feeding primarily on aphids. They also feed on mites, small insects, and insect eggs. The two exceptions are the introduced Mexican bean beetle, *Epilachna varivestis*, and the squash beetle, *Epilachna borealis*. The adults and larvae of both species feed on plants.

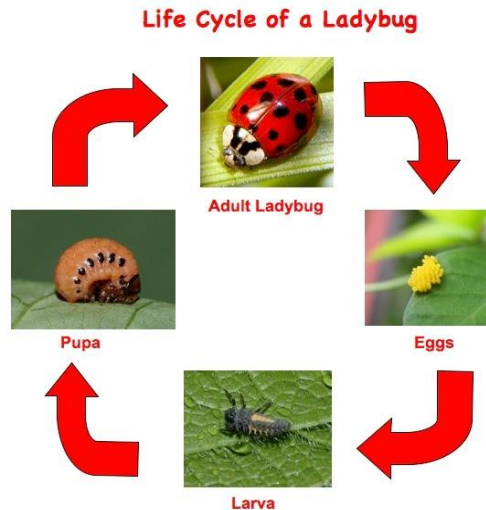
Appearance - Adult lady beetles are small, round to oval, and dome-shaped. The most well-known have black markings on red, orange, or yellow forewings, but some are black. The area immediately behind the head, the pronotum, may also have a distinctive pattern. The color and pattern of markings for each species may vary, but can aid identification. They have alligator-like larvae (below).



Habitat & Pest Prey - Many crops benefit from lady beetles. They are helpful for growers of vegetables, grain crops, legumes, strawberries, and tree crops; however, any crop that is attacked by aphids will benefit from these beetles. Most lady beetles found on crops and in gardens are aphid predators. Some species prefer only certain aphid species while others will attack many aphid species on a variety of crops. Some prefer mite or scale species.

If aphids are scarce, lady beetle adults and larvae may feed on the eggs of moths and beetles, and mites, thrips, and other small insects, as well as pollen and nectar. They may also be cannibalistic. *Because of their ability to survive on other prey when aphids are in short supply, lady beetles are particularly valuable natural enemies.*

Life Cycle - Lady beetles overwinter as adults, often in aggregations along hedgerows, beneath leaf litter, under rocks and bark, and in other protected places including buildings. In spring, the adults disperse in search of prey and suitable egg laying sites. This dispersal trait, especially strong in migratory species such as the commercially available convergent lady beetle, can affect the reliability of control by released adult beetles.



Female lady beetles may lay from 20 to more than 1,000 eggs over a one-to-three-month period, commencing in spring or early summer. Eggs are usually deposited near prey such as aphids, often in small clusters in protected sites on leaves and stems. The eggs of many lady beetle species are small (about 1 mm; 1/25"), cream, yellow, or orange, and spindle-shaped.



Lady beetle larvae are dark and alligator-like with three pairs of prominent legs. Depending on the species and availability of prey, larvae grow from less than 1 mm (1/25") to about 1 cm (3/8") in length, typically through four larval instars, over a 20-to-30-day period. Large larvae may travel up to 12 m (about 40') in search of prey. The larvae of many species are gray or black with yellow or orange bands or spots.

The last larval instar remains relatively inactive before attaching itself by the abdomen to a leaf or other surface to pupate. Pupae may be dark or yellow-orange. The pupal stage may last from three to 12 days depending on the temperature and species. The adults emerge, mate, and search for prey or prepare for hibernation, depending on the availability of prey and time of year. Adults may live for a few months to over a year. The more common species typically have one to two generations per year.

Relative Effectiveness - Lady beetles are voracious feeders and may be numerous where prey is plentiful and broad-spectrum insecticide use is limited. Lady beetles need to eat many aphids per day so that they can lay eggs. The convergent lady beetle may eat its weight in aphids every day as a larva and consume as many as 50 aphids per day as an adult. Seven-spotted lady beetle adults may consume several hundred aphids per day and each larva eats 200 to 300 aphids as it grows. Once the adults and larvae have eliminated an aphid colony, they

will search for additional food. Lady beetles are effective predators if aphids are abundant (high pest density) but are thought to be less effective at low pest densities. There may also be some crop damage before lady beetles have an impact on an aphid population.



Most lady beetle species are active from late spring to early fall if food is available. The adults of some species, such as *Coleomegilla*, may be attacked by a parasitoid wasp. Affected beetles are lethargic and may appear to be "attached" to a surface by loose silken threads.

Pesticide Susceptibility - Lady beetles may be tolerant of some chemical insecticides applied at recommended field rates. But tolerance may be influenced by prior exposure of the natural enemy population to the chemical, and there is considerable variation. For example, *Coleomegilla maculata* has been shown to be susceptible to carbaryl and methamidophos at doses that might be used to control aphids in potatoes. Overwintering adults may be less susceptible to chemical insecticides than active adults and larvae.

Conservation - Lady beetles are mobile as adults and reasonably so as larvae, and they are generalists. They will not remain on a plant, or in the vicinity, once the readily accessible prey has been consumed. Some species, in particular *Coleomegilla maculata*, consume pollen as an important part of their adult diet. A source of nectar and pollen, or an artificial substitute, in the vicinity of the crop may attract adult beetles and may reduce dispersal of this and other lady beetle species. Lady beetle adults also benefit from high humidity and nearby shelter, for protection from adverse weather and to provide overwintering sites.


Early season populations of some lady beetles may develop on aphid-infested perennials or shrubs. Collection and redistribution of lady beetles is effective but time consuming. The beetles should be handled gently and placed in groups at the base of plants, rather than broadcast. Hibernating adults, congregating in protected spaces, should not be disturbed as they are vulnerable to attack by predators and parasitoids if uncovered.

Commercial Availability - Field-collected convergent lady beetles are commercially available for use against crop pests, specifically aphids. Below is a bag of lady beetles bought from a biological pest control company for home garden use.



 <https://bugguide.net/node/view/179>

 <http://www.lostladybug.org/>

 <https://www.treehugger.com/surprising-facts-about-ladybugs-4864289>

 <https://www.eekwi.org/animals/insects/multicolored-asian-lady-beetle>



White-Nose Syndrome Killed Over 90% of Three North American Bat Species

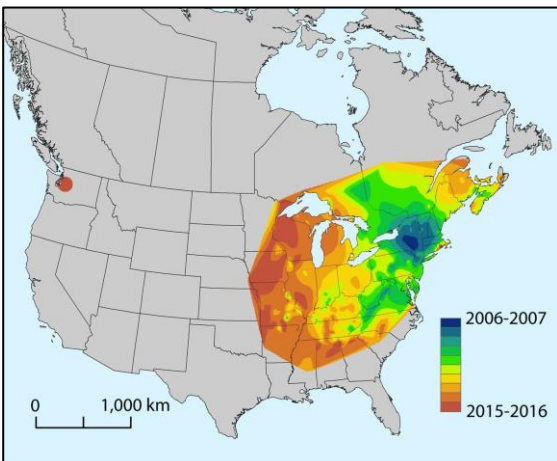
Excerpts from <https://www.batcon.org/press/white-nose-syndrome-killed-over-90-of-three-north-american-bat-species/>

White-nose syndrome, a fungal disease, has killed over 90% of northern long-eared, little brown and tri-colored bat populations in fewer than 10 years, according to a new [study](#) published recently in *Conservation Biology*. Researchers also noted declines in Indiana bat and big brown bat populations.



The findings, detailed in “The scope and severity of white-nose syndrome on hibernating bats in North America,” underscore the devastating impacts of the deadly fungal disease. The research tapped into the most comprehensive data set on North American bat populations to date, which includes data from over 200 locations in 27 states and two Canadian provinces.

White-nose syndrome is a disease that affects hibernating bats and is caused by an invasive, cold-loving fungus (above). The fungus grows on bats’ skin, disturbing their hibernation and resulting in dehydration, starvation and often death. First documented in New York in 2006, white-nose syndrome has since spread to 35 states and seven Canadian provinces (below) and has been confirmed in 12 North American bat species.



The findings represent the work of 60 individual collaborators, 37 organizations and hundreds of field technicians and volunteers who participated in winter surveys of bats over a 23-year period. The data was compiled by the North American Bat Monitoring Program (NABat), which was established by the U.S. Geological Survey and U.S. Fish and Wildlife Service, along with many partners, to improve conservation science for bats.

The Service leads the [national response](#) to white-nose syndrome through a collaborative effort that includes coordination among state, federal, tribal and non-governmental partners. The agency also offers grants to institutions and

natural resource management agencies to advance disease research and identify new solutions. Since 2015, NABat has been building infrastructure and coordinating efforts in response to the need for continental-scale monitoring to inform management of white-nose syndrome, as well as other threats to bats.

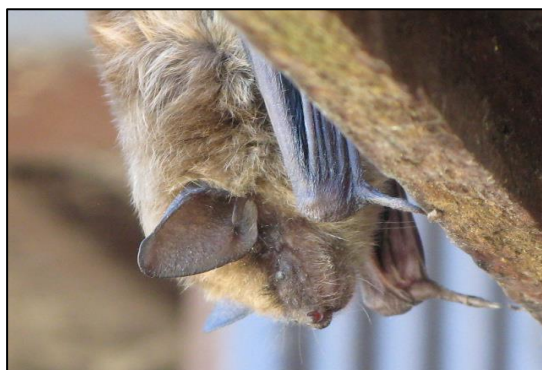
“The impacts of white-nose syndrome on bat populations have been swift and severe, but we are not without hope,” said Jeremy Coleman, national white-nose syndrome coordinator for the Service and an author on the paper. “Through strong collaborative efforts like this analysis, we continue to learn more about the dynamics of this disease and we will build the infrastructure we need to conserve native bats for future generations.”



“The severity of the impact of this disease on bat populations is staggering. We found that nine out of 10 bats of the most vulnerable species are now gone,” said Winifred Frick, chief scientist of [Bat Conservation International](#) and an author on the paper. “Bats are essential to our ecosystems, and our results that stem from working with so many biologists across the United States and Canada focus our efforts on how best to protect these important mammals.”

“With this collaborative study, we clearly illuminate the scale of the loss resulting from white-nose syndrome,” said Carl Herzog, senior wildlife biologist for the New York State Department of Environmental Conservation and an author on the paper. “The story it tells is grim, to be sure, but having a clear view of what we are up against is an important precursor to mounting an effective management response. It helps others understand what we’ve seen firsthand – once common species have declined by over 90% in less than 10 years.”

There is no known cure for white-nose syndrome, but scientists worldwide are working together to study the disease and determine how it can be controlled. Bats eat insects and are critical pest controllers. In the United States alone, bats are estimated to save farmers at least \$3.7 billion per year in pest control services.



The loss of so many nighttime insect predators can have cascading effects on the environment,

with potential to affect forestry, agriculture and human health. In Wisconsin, the Department of Natural Resources is the lead agency for WNS response in Wisconsin. The WDNR collaborates with state, tribal, federal and local agencies to control the impacts of WNS in the state. The role of WDNR includes:

1. Manage Wisconsin WNS Surveillance and Response
2. Organize and lead the State’s WNS science and stakeholder advisory groups
3. Inventory of bats and key bat sites such as hibernacula and maternity roosts
4. Implement surveillance, field investigations and other activities associated with WNS
5. Receive suspect WNS cases reported by partners involved with an initial health watch including: bat rehabilitators, WSLH colleague’s working with bats, and nuisance animal control
6. Prevent anthropogenic spread of WNS by:
 - * permit only safe practices for bat rehabilitation and
 - * mandate biosecurity measures and cave closures when appropriate and necessary
7. Lead implementation of response efforts specific to the identification of WNS
8. Long-term database management: collect and archive data on WI WNS cases in coordination with Bureau of Wildlife Management, Wildlife Health
9. Communicate with USFWS and other key regional and national agencies and working groups tracing the spread of the disease.
10. Communicate with state, federal and local agencies involved with the WNS incident, and the public
11. Lead agency for outreach and public education
12. Collaborate with the DATCP and the USDA to control of the disease including disposal of infected carcasses

Contact Information: [Wisconsin Bat Monitoring Program](#)

For more information about white-nose syndrome, please visit www.whitenosesyndrome.org.

About the North American Bat Monitoring Program:

Launched in 2015, the North American Bat Monitoring Program (NABat) is a continental program that monitors bats at local and range-wide scales. NABat provides reliable data to promote effective conservation and long-term viability of bat populations and is jointly led by the U.S. Fish and Wildlife Service and the U.S. Geological Survey. Participating members include U.S. Forest Service, National Park Service and other federal, state and provincial agencies in the United States and Canada, local and regional agencies, native Tribes, academic institutions, businesses and conservation organizations. For more information, visit nabatmonitoring.org.

About Bat Conservation International:

Founded in 1982, Bat Conservation International has grown into a global conservation organization dedicated to ending bat extinctions. Bat Conservation International’s goal is to redefine what is possible in global conservation through the utilization of cutting-edge tools, technology and training to create a real, measurable impact. For more information, visit batcon.org.



Northwoods Journal Online

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Invasive Species – Working with Citizens & Partners to Slow the Spread

dnr.wisconsin.gov/topic/Invasives & dnr.wi.gov/topic/Invasives/photos/index.asp

Invasive plants, animals and pests are taking a toll on Wisconsin's lakes, rivers and landscapes. The DNR is working with citizens and partners to slow the spread of invasive species. Through educational outreach, strategic planning and active management we are protecting our environment and economy from invasives.



Spiny Water Flea

What are Invasive Species?

Wisconsin Statute Section 23.22 (1) (c) defines invasive species as "nonindigenous species whose introduction causes or is likely to cause economic or environmental harm or harm to human health." Humans move organisms around all the time. Sometimes when we bring a non-native species into a new area the species will take over and spread rapidly and widely throughout the area. When this happens, the spread can cause major harm to the native ecosystem or humans. When non-native plants, animals or pathogens rapidly take over a new location and alter the ecosystem, we consider them **invasive species**.

How they become a problem

One of the reasons that invasive species are able to succeed is that they often leave their predators and competitors behind in their native ecosystems. Without these natural checks and balances, they are able to reproduce rapidly and out-compete native species. Invasive species can alter ecological relationships among native species and can affect ecosystem function, the economic value of ecosystems and human health.



Japanese Honeysuckle

Humans have created conditions where plants and animals can aggressively invade and dominate natural areas and water bodies in three ways:

- Introducing exotic species (from other regions or countries) who lack natural competitors and predators to keep them in check.
- Disrupting the delicate balance of native ecosystems by changing environmental conditions -- e.g., stream sedimentation, ditching, building roads) or by restricting or eliminating natural processes (fire for example); in such instances, even some native plants and animals can become invasive.

- Spreading invasive species through various methods. Some examples:
 - moving watercraft from waterbody to waterbody without removing invasive plants and animals
 - carrying seeds of invasive plants on footwear or pet's fur
 - mowing along roadsides
 - importing firewood and leaving in campgrounds
 - driving and biking with invasive seeds in tire treads.

The net result is a loss of diversity of our native plants and animals as invasive species rapidly multiply and take over. About 42% of the species on the federal Threatened or Endangered species lists are at risk primarily because of invasive species.

WHY WE SHOULD CARE ABOUT INVASIVES?

Economics

In the United States, expenses associated with ecological damage and control of invasive species were estimated at \$137 billion per year in 2001 and have been increasing ever since. More recent global studies have found that invasive species alone cost a minimum of \$35 billion per year in North America, not including the costs of these insects to human health. Rising human populations, increasing international trade and climate change all will be increasing the likelihood of the spread of current invasives into new areas and the introduction of new problematic species.

In Wisconsin, some industries affected negatively by invasive species include sport and commercial fishing, forestry, agriculture and raw water users including power companies, industrial water users and municipal water plants. These expenses are passed on to Wisconsin consumers, such as in higher water and electric bills.

The Great Lakes sport and commercial fishing industry, valued at almost \$4.5 billion and supporting 81,000 jobs, is at risk due to the growing numbers of invasive species present in its waters. For example, invasive round gobies (below) eat the eggs of sportfish such as small-mouth bass, trout and sturgeon in the nearshore areas of Lake Michigan.



There have been negative economic impacts due to the Viral Hemorrhagic Septicemia (VHS) restrictions on baitfish sales and fish hatchery/stocking operations. Other negative impacts include but are not limited to the reduction of property values. One study shows that property values have decreased as much as 19% on lakes infested by Eurasian watermilfoil.

Invasive shrubs such as non-native buckthorns and honeysuckles prevent the regeneration of young trees, causing a long term but very serious impact on forestry in Wisconsin – a \$28 billion a year industry with 66,000 jobs. In Wisconsin alone, 2015 spending on invasive species totaled approximately \$8.4 million. Many of the invasive plants that impact our natural areas are also agricultural weeds and are frequently spread along and from corridors that cut through the

landscape, like roads, rail lines and utility corridors. In 2001, Wisconsin Electric Power Company reported that they were spending \$1.2 million per year in the control of zebra mussels on their Lake Michigan power plants. These animals congregate on and clog intake and distribution pipes.

Health

Some invasive species may cause significant health problems. For example, a South American strain of human cholera-causing bacteria was found in ballast water tanks of ships in the port of Mobile, Alabama in 1991. Also, sharp zebra mussel shells can cut the feet of unsuspecting swimmers and waders. Health risks aren't only confined to water-dwelling invasive species. Simply rubbing against wild parsnip with bare skin can cause burned and blistered arms and legs. This roadside and grassland invasive is spreading rapidly in Wisconsin, but few people know of its dangerous impacts. Invertebrates are increasingly becoming vectors for serious diseases of humans, livestock and wildlife.

For example, we have recently seen the expanded range of the lone star ticks previously found only to our south. We now have at least six serious tickborne diseases affecting thousands of people per year. (For more about ticks in Wisconsin, visit www.tickcheck.com and www.dhs.wisconsin.gov/tick/index.htm).

Ecology

The introduction of invasive species disrupts natural communities and ecological processes. This disruption alters the role of competition and predation in many different ways, including ruffe and round goby out-competing native species and the negative impacts that has had on the food web.

Other negative impacts include the displacement of native species with the loss of species diversity and degradation of habitats due to invasive species like garlic mustard, honeysuckle and other shrubs, purple loosestrife and Eurasian watermilfoil among others. These invasive plants and animals also have the potential to be vectors for diseases that threaten the health of the ecosystem. Many of the constraints that invasive species face in their native range (e.g. diseases and pests) are absent in Wisconsin, which allows them to rapidly multiply at the expense of native plant and animal species.

In our waterways, the rapid spread of zebra and quagga mussels shows how profoundly an invasive species can alter the environment. These small mussels with huge appetites for microscopic plants and animals rapidly reproduce and are capable of severely altering their environment by reducing the food supply for native organisms and by enhancing conditions for the rapid growth of blue-green algae and aquatic vegetation.



Continued on page 6



Creative Ideas for a Child-Friendly Garden

<https://www.treehugger.com/creative-ideas-child-friendly-garden-5113352>

If you have kids and outdoor space, creating a child-friendly garden should be a top priority. A garden is a wonderful resource for parents and guardians – a place for learning, fun, and growth (of all kinds). A child-friendly garden should, of course, be a safe place. But creating a child-friendly garden is not just about safety. It should also be about finding ways to maximize the space for your children and family life in general.

To help you make sure you make the most of your garden, and make it a truly child-friendly space, here are a few tips and suggestions:

Give Kids Space to Grow Their Own

Growing your own food at home is a great thing to do with your kids. But in a child-friendly garden, it is a good idea to loosen the reigns a little. Let them call some of the shots. You can create garden beds and growing areas to work on together – but think about giving them their own separate spaces too.



Let them have an area that is entirely their own. A space where they can choose the seeds and plants and make their own decisions. Giving kids a sense of "ownership" over their own small plot can help them learn. But will also give them a sense of pride, accomplishment, and autonomy. When things go according to plan, they will feel great. And when things don't go as they wish, it can still be a learning moment.

Make Sure Your Garden is a Space that Can Be Enjoyed Through Every Season

Gardens are often spaces we spend a lot of time in over the warmer months, but neglect during the colder seasons. Yet even in areas where there are very cold winter temperatures, a child-friendly garden should be a space they can explore and enjoy year-round. Creating a garden building, or an undercover growing area can make it easier to ensure kids can make the most of the garden all year long.

A polytunnel or greenhouse, for example, could be a place to [grow food throughout the seasons](#). But it could also have a corner for kids to use. A heated garden building could open up even more options – especially in areas where very cold winters are experienced. Even an open-sided structure like a pergola or porch area could allow kids to spend time outside but out of the rain.



Create Space for Dens and Den Building

As well as creating your own structures for kids to enjoy the garden year-round, you should also consider creating spaces where they can make their own hideouts and dens. You might leave an open glade in a forest garden zone, or prune the shrubs in a perennial border to make spaces for imaginative play and "de-engineering" projects. Make sure there are plenty of natural and/or reclaimed materials lying around that kids can use to create dens and play structures of their own. Older kids might even be taught to use tools to create more permanent structures in these spaces.

Create a Play Kitchen for Experiments, Mud Pies, and Messy Play

An outdoor play kitchen can also be a great addition to a child-friendly garden. Provide access to water, pots and pans, buckets, and spades ... and let kids explore the natural environment of the garden through experimentation and messy play. Younger kids can have hours of fun with even the simplest of equipment. And older kids might even be able to rustle up their own real meals for outdoor dining when you give them the skills and tools they need to make the most of what they grow. An outdoor kitchen with, for example, a cob pizza oven, could provide hours of fun for them and their friends as they grow.



Make Spaces for Wildlife Watching

An important part of spending time in a garden should be enjoying the wildlife with whom you share the space. A child-friendly garden should have plenty of spaces for wildlife watching. Make sure that through your planting and habitat creation, you attract plenty of wildlife to the space. From simple benches overlooking garden ponds or wildlife zones, to fully kitted-out "hides" – make sure kids can see and interact with the nature around them in a range of interesting ways.



Think in Three Dimensions, and Consider a Child's Eye View

Gardens tend to be designed from an adult's perspective. But when designing a child-friendly garden, it is important to take some time to see things, quite literally, from younger peoples' point of view. Creating a layered and diverse planting scheme is important. Be sure to think about the garden in three dimensions. Adding structure and height can add drama to a garden. And you can also use taller planting to create a magical and exciting world for younger members of the family.

A mound on the ground can become a sleeping giant. A simple slope can become a mountainside to scale. A winding path between tall grasses and meadow planting can make it seem like there is an adventure around every corner. Trees or shrubs can create leafy tunnels to new worlds, and dense planting can be a jungle to explore.

Create Quiet Corners and Allow for Undirected Free Time in Nature

In a child-friendly garden, it is important not to manage everything too much. Children should have undirected free time in nature. They should be able to climb trees, crawl under shrubs, dig under rocks, and mess around in the mud. Leave wild and undisturbed corners where kids can have some alone time and discover the natural world on their own terms. Make sure you give them some space where you won't be annoyed with them for making a mess in your garden.



Consider Movement as Well as Static Zones

Finally, remember that young kids are always on the move! A child-friendly garden is not a space where you just consider creating spaces for specific activities or play that involves remaining in just one spot. You need to give kids space to move – run around – stretch their legs. Just remember that space to move does not necessarily have to be a boring lawn.

Creating winding woodchip paths between trees and shrubs, or mown pathways through a wildflower meadow, can also give kids the space they need to run around and play more actively. More diverse planting schemes can be more fun for kids, as well as being more eco-friendly spaces.



When Pest Comes to Shove - Mosquito Spraying Harms Pollinators and Other Wildlife, but There are Safe Alternatives

<https://www.nwf.org/Home/Magazines/National-Wildlife/2021/April-May/Conservation/Mosquitoes>

Every year, millions of monarch butterflies migrate south, riding air currents for up to 3,000 miles from the northern United States and southern Canada to central Mexico. But late last August, thousands of monarchs crossing the Midwest on their epic journey ran into a cloud of the insecticide permethrin - and perished. The insecticide had been sprayed from a plane by a government agency charged with controlling mosquitoes in the Fargo-Moorhead area of North Dakota and Minnesota. Yet permethrin, along with other pyrethroid products, also is frequently used by mosquito-control companies that spray residential backyards across the country.

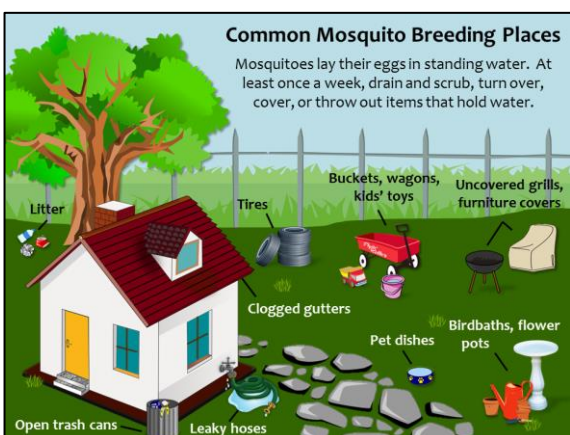


Most of these businesses claim that their treatments kill only mosquitoes and other insect pests. **"But without a doubt, spraying your yard for mosquitoes will harm other insects,"** says National Wildlife Federation Naturalist David Mizejewski. "The broad-spectrum insecticides used in commercial applications kill many bees, butterflies, moths, caterpillars, dragonflies and ladybugs." And the damage does not end there. Birds can also die, especially nestlings, when their insect food disappears. Fish and other aquatic organisms can succumb when the pesticides end up in nearby ponds and lakes, he says.

Yet Mizejewski also realizes that keeping mosquitoes at bay can be vital. In times past, these insects were primarily just a nuisance. But as climate change extends the range of many mosquito-borne tropical diseases - including Zika virus, West Nile virus, Chikungunya virus and dengue fever - the risks to humans are mounting. West Nile virus, which arrived in North America during the late 1990s, for example, kills between 100 and 200 people a year in the United States and Canada. Still, "there are alternatives to pesticides," says Mizejewski. He and other experts recommend several strategies for protecting yourself and your family - while safeguarding beneficial insects, birds and other wildlife.

Reduce breeding populations

"Finding the source of your mosquitoes is critical," says Aimée Code, pesticide program director for the Xerces Society for Invertebrate Conservation. "Many mosquitoes can lay their eggs in just 1 inch of water. You may have thousands of them breeding in your gutters." One way to keep gutters clean, she says, is to install a screen on the top to keep leaves from piling up and retaining water. David Brown, technical advisor for the American Mosquito Control Association, says that some mosquito species can successfully lay eggs in just a bottle cap filled with water. He recommends keeping



track of anything and everything that can hold water, including children's pools, pet bowls, flower pot saucers and watering cans, and also to check unexpected places such as leaking faucets and adjacent puddles. And don't forget your bird bath. The water should be completely dumped out and changed at least every two to three days.



In his latest book, *Nature's Best Hope*, Doug Tallamy, a University of Delaware entomologist, suggests placing a 5-gallon bucket in a sunny location in your backyard. Throw in some straw or hay and wait a few days. He says gravid female mosquitoes will find it irresistible and lay their eggs in the container. You can then add a "mosquito dunk" that contains *Bacillus thuringiensis israelensis*, or Bti, a natural bacterium that will kill the larvae when they hatch. If you have a pond or large water feature that cannot be drained, that's also a good place to use Bti. Because female mosquitoes avoid laying eggs in moving water, another option is to add a pump or fountain to your water feature.

Avoid introducing mosquitofish into a pond if they are not native to your part of the country. These small fish may devour mosquitoes, but they can also displace native minnows that do an equally good job consuming mosquito larvae. Other deterrents to avoid, says Brown, include ultrasonic devices, which don't work, and bug zappers, which kill very few mosquitoes but are proficient at dispatching beneficial insects such as moths and fireflies.

Likewise, **experts discourage hiring companies that spray with essential oils such as lemongrass, rosemary, peppermint and other botanicals to control mosquitoes, because such products also may kill nontarget insects.** Code notes that *it takes longer for bees and other beneficial insects to bounce back from the impacts of pesticides, even natural ones, while mosquitoes are quick to recover.*

To protect yourself from the pests, "make sure to wear long-sleeved shirts and long pants or use a repellent," says Code, especially if you are out in the early morning or late evening when mosquitoes are most active. While some people prefer to steer clear of chemical repellents, the products do work well.



The best defenses

The Centers for Disease Control and Prevention (CDC) recommends a repellent with one of the following active ingredients: DEET, picaridin, oil of lemon eucalyptus, para-menthane-diol (the synthetic version of oil of lemon eucalyptus), IR3535 (found in Avon's insect repellents) and 2-undecanone (a natural chemical found in many plants). While the U.S. Environmental

Continued on page 10

Invasives from page 4, continued

In our woodlands, garlic mustard (below) can completely cover the ground with first- and second-year plants in a matter of a few years. This European garden herb not only reduces light and nutrient resources needed by native wildflowers, but it is also thought to secrete a chemical into the soil that inhibits the mycorrhizal fungi necessary for tree growth.



Invasives can also alter your recreational activities. Hunters, hikers and birdwatchers can find they are no longer able to walk in their favorite natural areas. Thorny multiflora rose, dense stands of buckthorn and other invaders fill the understory of once open forests and grasslands. As the habitat is modified by invasive plant species, the wildlife that depends on native species decline as well. Non-native earthworms and generalist native species like white-tail deer tend to increase in weedy habitats, and in turn, they alter soil chemistry and structure and decrease native plant species and increase weedy non-natives.

Fishing outings can result in disappointment when aquatic invasive species modify our lake and stream habitats. Eurasian watermilfoil can clog boat motors and invasive animals such as the rusty crayfish gobble up aquatic plants like underwater lawnmowers, reducing habitat for native fish at every stage of their life cycle. The invading crayfish may even eat the eggs of some of our favorite sport fish. This threatens a national sport and commercial fishing industry that supports 81,000 jobs in the Great Lakes region.

For more about invasives, how to prevent/control and report invasives, contacts, publications, best management practices and more, visit the websites in the title box on page 4.

Marinette County recently received funding from the Lake Monitoring and Protection Network Grant Program to focus on AIS (aquatic invasive species) inventory and awareness efforts. Land Information Department seasonal staff will be doing an inventory of current signage at all public boat landings within the county as well as reporting any aquatic invasive species that may be present at or near the launch sites. The staff will also be hosting at least one *Clean Boats, Clean Waters* event and participating in the statewide 'AIS Snapshot Day' scheduled for August 21st, 2021. During this event, volunteers will search for aquatic invasive species in WI rivers, streams and lakes. Our staff will coordinate the event within Marinette County. For more information about these activities, contact:

Sarah Topp, Marinette County Conservationist
Marinette County Land Information Dept.
Office: (715)-732-7783
Cell: (715)-923-3083
E-mail: sarah.topp@marinettecounty.com



Marinette County Breakfast on the Farm

Sunday, June 27, 2021, 7:30 a.m. to Noon

**Brian & Brenda Hartwig Farm
W4744 Town Hall Rd, Peshtigo, WI**



Pancakes, eggs, sausages, cheese curds, maple syrup, applesauce, milk, juice, coffee, ice cream sundaes,
Adults – \$7.00 / Children 6-10 – \$4.00, Children 5 yrs & under – FREE
(No advanced ticket sales)

Petting zoo, Moo-Mania comedy show, kiddie tractor pull, face painting, balloons, kids bouncy play area, viewing of barns & cattle, wagon rides, music

Like us on Facebook—Marinette County Dairy Promotions WI

Any Questions Please contact Corey Kuchta @ 920-660-4182

Brian Hartwig is a 3rd generation owner. The farm was originally purchased in 1929 by Brian's grandfather, John Hartwig, Sr. Around 1960, Brian's father, John Hartwig, Jr. purchased the farm, and around 1990, Brian purchased the farm from his father, John Hartwig, Jr. After Brian purchased the farm, he married Brenda, who is the main calf feeder, morning & evening feedings (whom she is very passionate about, she loves her baby calves) & also helps out where needed on the farm.

Brian & Brenda have 4 boys. Gus, Zac, Josh & Ben. Gus has a daughter Marilyn (5). Zac, who works full time on the farm, is married to Taylor, and they have 2 boys, Oliver (3 1/2) and Bennett (1 1/2). Josh & Ben assist on the farm when they can. The grandkids enjoy spending time on the farm & in the barn. Rick Hartwig, Brian's brother, also works on the farm assisting with milking, field work, & harvesting.

The farm grows everything the cows need to eat, except soybeans. All of the feed is stored in upright sealed silos with bottom unloaders. The farm owns all of the equipment needed to do all field work; planting, harvesting, and manure hauling, which is all done by family members.

Milking the 80 cows twice a day usually takes an hour each time, with 2 people milking & 12 units. The milk cows are housed and milked in a comfortable tie-stall barn, with thick, soft rubber mats along with sawdust or straw for bedding. After the morning milking, cows are let outside to eat from the outside bunk feeder and to allow observation of any cows that may be in heat. There are roughly 200 total dairy animals on site, which includes dry cows, heifers, steers, and calves. The farm raises all their own steers and heifers. All the cows & heifers are bred A.I. to select bulls. The farm utilizes only select polled bulls, with the goal of having a herd with no horns, naturally.

All the dry cows & close freshening heifers have their own free stall dry cow barn with thick soft rubber mats & sawdust for bedding. They can also eat from the outside bunk or head to pasture if they choose.

The farm philosophy is to keep it small & simple, quick & easy and produce a clean healthy milk product.

"We love farming but also enjoy our free time with family and other activities and don't want to work our entire lives away doing it. We work together to get the work done that needs to get done, so we can enjoy time with our loved ones. (On a typical day we usually only work 4-5 hours totally if no field work or harvesting needs to be done). We are proud of our farm and we hope to see everyone at the **2021 Marinette County Breakfast on the Farm!!!!**"

Thank you to the following businesses for supporting the **2019 Breakfast on the Farm** in money or in kind donations last year:

Platinum—\$1,000 or more

A&C Sawdust
CHS Larsen Cooperative
Dan, Sue, Eric Van De Walle
Graese Electric
Great American Disposal
Greenstone Farm Credit
Hoida Construction
Lee's Family Foods
Meatski's
Mt. Morris Mutual Insurance
Patz Corporation
Valley Vet Clinic
Witts Piggly Wiggly & Ace Hdw
Zorn Trucking
Gold—\$500- \$999
A Pane to Clean
Beaver Machine
BMO Harris Bank
Charapata Seed Sales
Cornette Farm Supply & Vita
Crivitz Redi-Mix
Culvers

Dan Risner & Son Excavating
Dennis Schroeder Trucking
Jandt Farms
KBM Construction
Kotecki Veterinary Service
Pelkins Piggly Wiggly
Peshtigo Feed Mill
Peshtigo Times/Time Saver
Riesterer & Schnell Inc.
Swiderski Equipment
Waupaca Foundry
Wisconsin Public Service
Silver—\$250-499
AgroPour Inc
Badgerland Cattle Inc
Beaver Brook Maple Syrup
Belgioioso Cheese Inc
Biehl Construction
Coleman United Coop Shipping
Country Visions Cooperative
Dair-Ray Vet Service
Dairy Department Inc
Dairy Farmers of America
Dan Bieber Equipment LLC
Genex Co-op Jeff J. & Jeff Fischer
Golden Ridge Dairy LLC
Graef Transport Inc
Hoppe Dairy

J&T Electric & Supply Inc
Kaufman Farms
Keith & Nancy Hartwig
Kozlovsky Dairy Equipment, Inc
Menza & Zak Heating & Cooling
N-K-S Tire Sales & Service
Oconto Electric Cooperative
P&D Sales and Service
Paul's Portables
Peshtigo National Bank
Peshtigo Times/Times Saver
Peters Concrete Co
Pomps Tire
Rhodes-Charapata Funeral Home
Saputo Cheese, USA
Springside Cheese
Tappin' Teachers
Vanderloop Equipment
Van De Walle Farms
Wagner-Casper Ins. Agency
WI-MI Insurance Agency
Tom Wiedemeier Sawmill
Bronze—\$100-249
Airgas
Alternative Animal Bedding
Burger King of Marinette
Chrysler World
Coleman Pound Lioness Club
Countryside Veterinary Clinic LLC
Crivitz Pharmacy
Crivitz Veterinary Clinic Inc

D&D Equipment Inc
Dufek Livestock Trucking LLC
Dumke Bros.
Foxland Harvester/Valley Building
Frank's Logging
Gendron's Inc
Graetz Mfg.
Great Lakes Foods
H.J. Dudkiewicz & Sons, Inc.
Holley's Harvest
GVD Feed Covers LLC
Hosking Electric
Ideal Tent & Party
Investors Community Bank
Jakes Jumpers
Katies Subs
Kevin J Pepin D. D.S. S.C.
Marinette County Farm Bureau
Marinette Co Holstein Association
Merrill Equipment Co
Midwest Sidewalls
North Tech Pumps
North Wood Flooring
Oconto County Lumber
Patz Maple & Honey Farms
Petal N Roots Greenhouse
Precision Carts
Rymer Heating LLC
Seefeldt Farms
Stephenson National Bank & Trust
United Cooperative
Village Pharmacy Inc
Wagner Sugar Hill
Waldvogel Trucking
Wisconsin Building Supply





CAMPERS CORNER

Marinette County Parks



GREAT NEWS!

MARINETTE COUNTY ANNUAL PARK PASSES

Your discounted *Marinette County*
Annual Park Pass can now be
purchased in Crivitz!

On Thursdays: May 27 - Sept 2 | 8 am - 2 pm
Crivitz Flea and Farmers Market
808 Henriette Ave • St. Mary Parking Lot

VETERANS

w/ military ID \$12

SENIORS

65+ \$12

GENERAL \$25

***Discounted passes can only be
purchased in one other location:**

The Marinette County Court House • M-F 8 am - 4:30 pm
Parks Dept: 1926 Hall Ave., Marinette, 54143

Contact the Parks office at 715-732-7531 or visit

www.marinettecounty.com/departments/parks/general-information/campgrounds-and-parks/

Keep Wildlife Wild! What You Can do to Help Sick, Injured, or Orphaned Wildlife – Wisconsin DNR

<https://dnr.wisconsin.gov/topic/WildlifeHabitat/orphan>

Wildlife that's sick? Injured? Orphaned? Should you help? Most of the time, leaving a baby animal where it's found IS helping. If an animal is injured, sick, or truly orphaned, Wisconsin regulations allow a person up to 24 hours to transfer a wild animal to a licensed rehabilitator. It is best to transfer to a rehabilitator as soon as possible. Wildlife rehabilitators are licensed and trained to provide temporary care to wild animals.



Wild animals belong in the wild!

- ✓ A baby wild animal's best chance for survival is with its mother.
- ✓ It is illegal to possess, own, control, restrain, or keep any wild animal.
- ✓ Wild animals may carry diseases, some of which are transmissible to people or domestic animals.
- ✓ Wild animals have complex nutritional needs not easily met in captivity.
- ✓ The best option for a wild animal is to learn normal behaviors from their own species in their natural environment.
- ✓ Wild animals can be highly stressed by sights, sounds, and smells from people and domestic animals, especially when in close proximity



Is the baby wild animal truly orphaned?

Baby wild animals are commonly presumed orphaned because they are often found alone, without their parents near them. Many times the best way for wild animal parents to protect their young, is to leave them alone, or concealed within natural vegetation.

- White-tailed deer fawns hide and lie very still. Their spots and lack of scent protect them from predators. Their mother will return a few times a day to feed them.
- Cottontail rabbit babies are left hidden while their mother only returns at dusk and dawn to feed them.
- Raccoon babies are often active during the day without their mother. She is close by, but she usually only comes out at night to feed them.
- Songbird fledglings hopping on the ground have not yet learned how to fly. Their parents spend little time with them at this stage because they are busy looking for food to keep their babies fed.

Sick or injured wildlife

Sometimes wild animals are sick or injured and in need of help. If an animal . . .

- is truly alone because parents are dead or relocated
- has been attacked by another animal
- is bleeding and appears injured
- is emaciated, very weak, cold, or soaking wet
- has many parasites
- is in a dangerous location (like the middle of a busy road, as in the photos below)...

then it needs help.



If it needs help:

- Contact a licensed rehabilitator near you. Visit dnr.wi.gov keyword "rehab" for a list or call the DNR at 1.888.WDNR.INFO.
- Transfer the animal to a licensed rehabilitator as soon as possible.
- Do not feed or offer water to the animal unless specifically told to do so by a rehabilitator.
- Ask a rehabilitator for tips before attempting to transport the animal.
- Avoid contact with other animals and people to reduce further stressing the baby wild animal.

CALL FIRST! For more information and tips to determine if a wild animal is sick, injured or truly orphaned and for reasons to Keep Wildlife Wild visit the WI DNR website: www.dnr.wi.gov, keyword "keep wildlife wild", or call the Wisconsin DNR at 1.888.WDNR.INFO (1.888.936.7463).

For more about wildlife rehabilitators in Wisconsin:

<https://dnr.wisconsin.gov/topic/WildlifeHabitat/directory.html>.

More general information about baby wildlife:

- <https://wisconsinwoodlands.org/keep-wildlife-wild/>
- <https://p.widencdn.net/wxy5id/orphan>
- <https://wp.auburn.edu/deerlab/wp-content/uploads/2014/05/62Ext2011-Fawns.pdf>



Mosquitoes continued, from page 6

Protection Agency has registered all of these repellents for their safety, it's a good idea to avoid the potential overuse of any chemical products. According to the CDC, repellents should not be applied near the eyes or mouth and used only sparingly around the ears. There's no need to spray skin under clothing. If you are also using sunscreen, apply it first and the repellent second. Wash off treated skin when you go back inside.

Another way to discourage mosquitoes is to set up one or two fans in your backyard. The insects "are weak flyers," says Code, and will often depart if confronted with a breeze. Research also shows that the current from a fan reduces a mosquito's ability to zero in on an individual.

Wildlife to the rescue

Gardening for wildlife will attract many natural predators of mosquitoes. Dragonflies and damselflies, for example, are voracious mosquito eaters. Turtles, frogs and bats will also devour the insects as will many species of birds, from hummingbirds to woodpeckers, warblers and wrens. "Predators will never kill every last mosquito, of course," says Mizejewski. "But the most-effective way for people to reduce their numbers is to target larvae, not spray adults."



Even if you keep mosquitoes at bay in your own yard without spraying, when your neighbors use pesticides, you still will lose pollinators and other beneficial insects. "Let your voice be heard," Mizejewski says. Talk to people who live near you. Write letters to the editor of your local newspaper. If your community has a neighborhood association, attend meetings and speak up. If possible, engage your city and county governments to encourage alternatives to spraying - such as introducing natural predators and parasites - as part of their mosquito-control programs.

Mizejewski stresses that such individual actions are important. Nearly 3 billion birds have disappeared from North America since 1970 - in part due to the loss of their insect prey - and some insects are themselves vanishing at warp speed. "Pesticides are a significant contributor to all of these wildlife declines," Mizejewski says. "How we fight mosquitoes at home really matters."



Protect Turtles on the Move this Summer

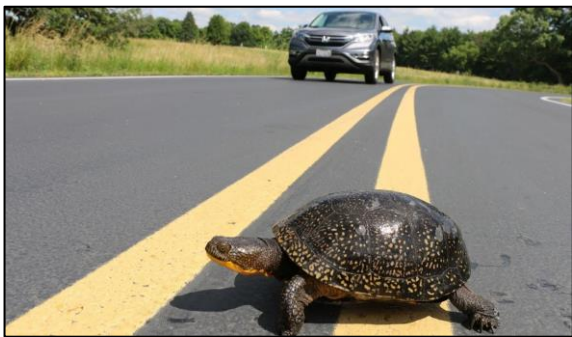
<https://dnr.wisconsin.gov/newsroom/release/44291>



Many Wisconsin turtle species, like this snapping turtle, will soon be laying eggs.

With turtle nesting season soon underway, state conservation biologists and highway officials are joining forces to encourage Wisconsinites to hatch a brighter future for slow-moving, slow-growing turtles by taking a few simple steps.

Most of Wisconsin's 11 turtle species breed in late May through June and often cross roads to lay their eggs in nests on higher ground. Turtles getting run over by cars is a leading cause of the decline in turtle numbers in Wisconsin. The predation of turtle nests by raccoons, skunks and coyotes is another major problem.



Because some species – such as wood turtles and Blanding's turtles (above) – take 12 to 20 years to reach reproductive maturity, the death of even one female turtle a year can take a big toll.

To protect turtle populations, the Wisconsin Department of Natural Resources (DNR) and the Wisconsin Department of Transportation (WisDOT) are asking people to protect turtles on the move. Follow these protective actions from now through the end of June, when the nesting season ends:

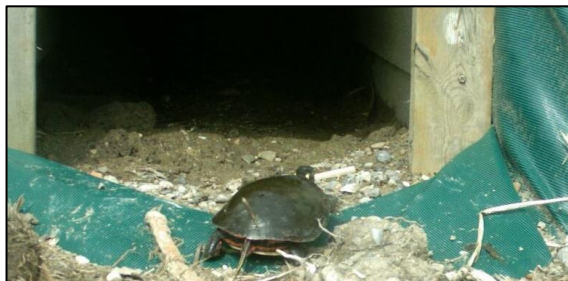
- Drive with caution near wetlands and rivers. Slow down, be alert and reduce distractions.
- Report roadways where turtles are crossing or are dead on the road. [Fill in the short online form on DNR's Wisconsin Turtle Conservation Program website.](#)
- Build a nest cage to protect turtle eggs and later, hatchlings, if turtles are nesting on your property. [Find instructions](#) and a [step-by-step video for a nest cage](#) (below) that allows hatchlings to exit but keeps predators like raccoons and skunks out.



Road Crossing Reports Yield Concrete Benefits for Turtles

Since the DNR began seeking information about turtle sightings and turtle crossings in 2012, people have provided more than 7,500 reports, with roughly half of those identifying turtle crossings. Such reports have substantially increased awareness and education boosting turtle conservation in the state. The information is entered into the Natural Heritage Inventory, a database of rare species locations and population information. The database is consulted by DNR staff reviewing plans for public and private roadway and other developments, and by private consultants as well. DNR staff recommend ways to avoid impacting rare turtle species, and local advocates have also used the information to push for turtle conservation measures on roadways.

WisDOT routinely works with the DNR and other agencies to identify sensitive wildlife issues near project sites and, when feasible, create solutions through staging and scheduling. In some cases, unique infrastructure solutions are developed to help limit the amount of wildlife on the road entirely – creating safety benefits both for the species and the passing motorists. For example, a highway project unfolding this summer incorporates a culvert and fencing to help keep turtles from traffic by leading them under the new roadway (below). A similar project in central Wisconsin in recent years has shown positive ecological benefits.



In another example of how turtles are benefitting from the increased public awareness of turtle crossings and turtle conservation, in 2020 Girl Scout Ella Kreuziger contacted the DNR about a highway in Waukesha County where many turtles were crossing. She raised money to pay for stenciling a turtle crossing sign to alert motorists. The Waukesha County highway department did the work last fall and Ella received her Silver Award in scouting for helping turtles cross to safety.

[Report turtles you encounter using the DNR's online Turtle Conservation Program form.](#)



2020 Pollinator Invitation Gardens (P.I.G.) doing well so far in 2021!

By Anne Bartels, Information & Education Specialist - Land Information Department



The 2020 P.I.G. Project logo

Last summer, I helped install around 35 small pollinator gardens throughout Marinette County for mostly residents and some organizations. This summer, I will be following up on those gardens to see how they are doing. I have a few more to install this summer and I hope to add a few more for organizations/facilities in the county. So far, several seem to be doing pretty good, as evidenced by the photos below, taken in May & early June.



Above and below - P.I.G. gardens at private residences



Good Shepherd Lutheran Church in Peshtigo



The Marinette REC Center



At the UW-Green Bay Marinette Campus, staff added more plants, as we didn't finish the garden in 2021.



8 Things You Should Know About Getting Kids into Nature

<https://www.treehugger.com/things-know-getting-kids-nature-5185337>

(Tips from Richard Louv's famous book, 'Last Child in the Woods'.)



Lesson 1: Nature Is About Health, Not Leisure

Louv wants parents to stop thinking of nature time as optional leisure time. It should be viewed instead as "an essential investment in our children's health." If parents were as committed to taking their kids into nature as they are to extracurricular activities, kids' wellbeing would improve considerably. Louv would like to see nature experiences "taken out of the leisure column and placed in the health column." It's an unconventional and refreshing way to think of it.

Lesson 2: Don't Watch the Clock in Nature

We've all been on those walks with our kids when they stop to inspect a rock, a leaf, an anthill, and it takes 10 minutes to take 10 steps. Parents should resist the urge to hurry their children along and allow them the time they need to explore their surroundings. Louv writes, "It takes time - loose, unstructured dreamtime - to experience nature in a meaningful way." The next time you're out, let your kid set the pace and follow along behind. You'll get home eventually.

Lesson 3: Look for the Edges

Nature exists in greater intensity along the lines where habitats meet. "Where the trees stop and a field begins; where rocks and earth meet water; life is always at the edges." You'll see more movement and growth, more wildlife, more unusual plants, more visual interest. Sit there a while and soak it in.



Lesson 4: Build Treehouses

Louv calls it "schoolhouse in a tree" and says he has a soft spot in his heart for tree forts, which impart "a certain magic and practical knowledge." Building treehouses teaches kids basic engineering and construction skills, but more importantly it brings them close to nature. They forge an intimate and indelible relationship with the tree(s) they choose - and that's a memory they will carry for life.



Lesson 5: Some Destruction Is OK

There's not much point in working to preserve natural areas if children - the future stewards of those areas - are never allowed to play within them. A certain amount of destruction should be allowed to occur, such as building forts, catching wildlife, plucking flowers, and sliding down sand dunes, in order for meaningful connections to be forged. Louv quotes education expert David Sobel, who says, "[Treehouses] undeniably damage the tree, but that occasional damage to a tree is not as important as what children learn when playing in that tree."

Lesson 6: Bring Back Wonder

The current approach to education creates a "know-it-all state of mind [with] the accompanying loss of wonder." This is tragic since children are capable of profoundly moving experiences in nature when given the opportunity. Allow your child to experience ecstasy in nature - ecstasy in the sense of delight or fear or a tingling mixture of both.



Lesson 7: Stop Focusing on Your Child's Safety

It's not helping them. When children are kept indoors or under rigid oversight, they lose the ability and the inclination to become confident, self-sufficient, and interactive people. A child who takes for granted the fact that they're "being electronically tracked every day, every second, in every room of their lives, in the unbrave new world" will grow up with a false sense of security, not to mention an absolute lack of practical knowledge for when they do have to look out for themselves.



Lesson 8: Make Nature Your Religious Practice

From an interview Louv conducted with a woman named Joan Minieri, who worked for a New York City-based interfaith environmental group, said that, as a parent, she sees it as her responsibility to take her child into nature, "just as my parents saw it as their responsibility to bring me to church." Taking kids into nature can help them become better human beings just as much as other practices like going to religious services/events.

For more about getting kids into nature, visit the Children and Nature Network, <https://www.childrenandnature.org/>, or visit:

- www.nwf.org/Kids-and-Family/Connecting-Kids-and-Nature
- <https://getthekidsoutside.com/>
- <https://thewildnetwork.com/>
- <https://runwildmychild.com/>

Being a Monarch Mom!

By Anne Bartels, Information & Education Specialist - Land Information Department



Each year, I purchase monarch larva from www.monarchwatch.org, an organization located at Kansas University, that promotes monarch butterfly conservation and education. I raise the larva until they are big enough to let go in my yard, and then place them in the several species of milkweeds I have in my gardens. I will then wait to find the many chrysalids that appear and a bit later, am glad to see the adults emerge and use my native plants as nectar sources. Sometimes I bring the larva to education programs as well. Here are some photos from this year's larva 'class' and their 'graduation' to adulthood!



Bipartisan Bill Will Create Jobs, Prevent Extinctions by Helping Nation's At-Risk Wildlife

<https://www.nwf.org/Latest-News/Press-Releases/2021/04-22-21-Recovering-Americas-Wildlife-Act-Intro> & <http://nwf.org/recoverwildlife>



The [Recovering America's Wildlife Act](#) will create jobs and improve the nation's resilience to climate change by dedicating \$1.4 billion annually to proactive, voluntary, locally-led efforts to help wildlife at risk.

"America's wildlife are in crisis. One-third of all species in the country currently face a heightened risk of extinction. This bill represents a bold, bipartisan vision for how we can recover wildlife and create jobs in every state across the nation," said Collin O'Mara, president and CEO of the National Wildlife Federation. "There is important work just waiting to be done restoring habitat, removing invasive species, stopping wildlife diseases, reducing water pollution, and mitigating the harm from climate change. This bill will put people to work today protecting our wildlife heritage for tomorrow."



Ram's Head Lady Slipper (orchid)

"Representatives Dingell and Fortenberry's steadfast leadership on this bill is a shining example of how Congress can still find common ground on conservation even in these polarized times. We're confident the bill will be signed into law by President Biden this year."

More about the Recovering America's Wildlife Act:

- The [Recovering America's Wildlife Act](#) dedicates nearly \$1.4 billion annually to prevent vulnerable species from declining to the point where they need the protections of the federal Endangered Species Act while providing a significant new source of funding for species that already are federally protected.
- Congresswoman Debbie Dingell (D-MI) and Congressman Jeff Fortenberry (R-NE) reintroduced an updated version of the Recovering America's Wildlife Act with House Committee on Natural Resources Chairman Rep. Raúl Grijalva (D-AZ), Rep. Jared Huffman (D-CA), Rep. Peter DeFazio (D-OR), Rep. Chellie Pingree (D-ME), Rep. Mike Simpson (R-ID), Rep. French Hill (R-AR), Rep. Austin Scott (R-GA), and Rep. Jenniffer González Colón (R-PR).
- Last session's House bill had 185 bipartisan cosponsors and was reported out of the House Natural Resources Committee with an overwhelming 26-6 vote. A version of the bill passed the House as part of the infrastructure package, H.R. 2 Moving Forward Act. In the 115th Congress, the bill had 116 cosponsors, with a nearly even split between Democrats and Republicans.

- The state-led wildlife recovery efforts funded by this bill will be guided by the Congressionally-mandated State Wildlife Action Plans (see more information below), which identify specific, science-based strategies to restore the populations of species of greatest conservation need. These plans identify more than 12,000 species that need conservation assistance.
- Tribal Nations would receive \$97.5 million annually to fund proactive wildlife conservation efforts by Tribal wildlife programs and on Tribal lands.
- The bill requires at least 15% of the funding to be spent on threatened and endangered species. States with the most federally-listed endangered and threatened species, such as Hawaii, will receive significantly more funding from this version of the Recovering America's Wildlife Act.
- The bill complements the highly successful Federal Aid in Wildlife Restoration Act (Pittman-Robertson) and Federal Aid in Sport Fish Restoration Act (Dingell-Johnson), which facilitated the recovery of a range of species including large mammals, game birds, and sportfish that once faced extinction.
- A 2018 report, [Reversing America's Wildlife Crisis: Securing the Future of Our Fish and Wildlife](#), found that one-third of America's wildlife species are at increased risk of extinction. More than 150 U.S. species have already gone extinct and an additional 500 species have not been seen in recent decades and are regarded as possibly extinct.

Every state has written a State Wildlife Action Plan, which acts like a blueprint for conservation. These Action Plans assess the health of wildlife and habitat in the state, so experts know which species are at risk, and outline steps needed to conserve the "species of greatest conservation need" before they become more rare and costly to protect.



Slender Glass Lizard

The State and Wildlife Grants Program, initiated in 2000, is currently the main source of federal funding for states and territories as they implement these plans. [These funds have begun to see some success recovering wildlife.](#) However it is grossly inadequate, only providing \$65 million for all 50 states and territories. The Recovering America's Wildlife Act will significantly advance the implementation of these plans, enabling states to recover thousands of at-risk species.

State fish and wildlife agencies have identified [more than 12,000 species in need of proactive conservation efforts](#) in the United



Loggerhead Shrike

States, including the more than 1,600 U.S. species already listed as threatened or endangered under the [Endangered Species Act](#).

- ✓ **Birds** — One-third of bird species in North America are in need of urgent conservation action.
- ✓ **Fish** — More than 40 percent of freshwater fish species are at risk in North America.
- ✓ **Amphibians** — Approximately 42 percent of amphibian species (frogs, toads, and salamanders) are threatened or declining in the United States.
- ✓ **Reptiles** — In the United States, 33 percent of turtles are threatened and 5 percent of other reptiles are threatened.
- ✓ **Butterflies** — Of the roughly 800 butterfly species in the United States, 17 percent are known to be at risk of extinction—but that's likely just the tip of the iceberg, since there isn't enough information on many native butterfly species.
- ✓ **Bumblebees** — More than one-quarter of North American bumblebee species are facing some degree of extinction risk.
- ✓ **Bats** — An estimated 18 percent of bat species are at risk of extinction, with an additional 13 percent potentially at risk. This places bats among the most threatened groups of North American vertebrates.
- ✓ **Freshwater Mussels** — Overall, 70 percent of freshwater mussels in North America are already extinct or imperiled.



Fawnsfoot Mussel

Unless our nation invests in proactive, on-the-ground, collaborative conservation, we risk losing thousands of species and our wildlife heritage to preventable challenges. The Recovering America's Wildlife Act will help at-risk wildlife before they need the more costly and restrictive "emergency room" measures required by the Endangered Species Act, while also helping recover those species already listed as threatened or endangered. The current levels of funding are less than 5 percent of what is necessary.

The rapid decline of so many species of wildlife and the habitats they depend on threatens Americans' quality of life, and our outdoor recreation economy, which contributes \$887 billion to our national economy annually, creates 7.6 million direct jobs, and generates \$124.5 billion in federal, state, and local tax revenue, according to the Outdoor Industry Association.

WI Endangered & Threatened Species Information:

- <https://dnr.wisconsin.gov/topic/EndangeredResources>
- <https://p.widencdn.net/byxof6/ER001>



Many Groups Utilize Marinette County's T.O.A.D. Programs

By Anne Bartels, Information & Education Specialist - Land Information Department



The Land & Water Conservation Division's T.O.A.D. (Teaching Outdoor Awareness & Discovery) environmental education programs have been very popular this spring. I'll be conducting several programs this summer for day care groups, the Peshtigo Parks Department, UWGB-Marinette's Lifelong Learning Institute, and more.



Peshtigo Kindergartners learn about the signs of spring at Badger Park



Wausauke 4th graders play 'Camouflage hide n' seek' after learning about different types of camouflage as wildlife adaptations.



Above – St. Mary's 5th graders search for aquatic macroinvertebrates along the Peshtigo River; below, Marinette-Menominee Homeschoolers search at Stephenson Island. The students then identify the critters using an identification key.



Peshtigo 5K students, above, and Crivitz 2nd grade, below, learn about the Lepidopterans – butterflies and moths. At Crivitz Elementary we used the pollinator garden near the school during our class outside.



Crivitz 6th graders learn about Wisconsin's mammals at Camp Bird during the "Skins & Skulls" program.



Crivitz 4th graders play "Oh, Deer!", a habitat activity, at Lake Noquebay Park during a recent field trip.



Above, Wausauke Kindergartners search for insects during "Bingo Bugs"; below, 5th graders decorate papier-mâché picture frames with natural materials in the "Nature Art" program.



Peshtigo 6th graders searching along a stretch of the Peshtigo River for aquatic macroinvertebrates, and my TOAD program selfie!



Crivitz 3rd grade at the Harmony Arboretum Children's Garden mural during their annual field trip.

For more about the T.O.A.D. program, visit www.marinettecounty.com/departments/land-information/environmental-education/toad/, or contact me at abartels@marinettecounty.com or 715-732-7784.

Viewing Sturgeon at Peshtigo Fish Viewing Platform

Views of very active sturgeon in mid-May from the new platform in Peshtigo!

